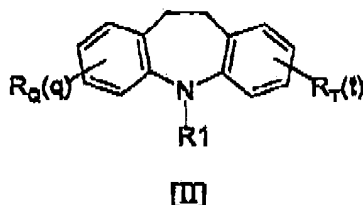


PGT/IL 00/00510
IPEAUS 19 NOV 2001

32

WHAT IS CLAIMED IS:

1. A compound having a general formula (II):



wherein R_1 is an unsaturated alkyl, amino-alcohol, diamino, or cycloalkyl; R_Q and R_T are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted $(CH_2)_m$ -(hetero)aryl, and sulfonylamide; q and t are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

2. The compound of claim 1, wherein R_1 is a said amino-alcohol being $(CH_2)_nCHOHCH_2NR'R''$, wherein n being 0-5, R' , R_Q , R_T , are each a hydrogen and R'' is a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted $(CH_2)_m$ -(hetero)aryl, and sulfonylamide.

3. The compound of claim 2, wherein n is 2 and R'' is an alkyl selected from the group consisting of propyl, *n*-butyl, *tert*-butyl and with the proviso that R'' is not a methyl or an ethyl moiety.

4. The compound of claim 2, wherein n is 1 or 2 and R'' is saturated or unsaturated $(CH_2)_m$ -cycloalkyl or $(CH_2)_m$ -(hetero)aryl, m being 0-5.

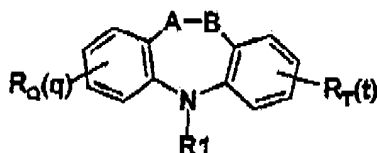
AMENDED SHEET

PCT/IL 00/00510
PEA/US 19 NOV 2001

33

5. The compound of claim 4, wherein m is 1 and R' is an aromatic 6-member ring.

6. A composition for treating or preventing cardiac arrhythmia, comprising a pharmaceutically effective amount of a compound in combination with a pharmaceutically acceptable carrier selected from the group consisting of a slow release carrier, an implant and a transdermal patch, said compound being a member of a group having the formula:



wherein,

A is CH or CR_2R_3 ; B is CH , CR_4R_5 or NR_6 , wherein R_2 , R_3 , R_4 , R_5 and R_6 are each independently selected from the group consisting of hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted $(\text{CH}_2)_m$ -(hetero)aryl; or A and B together are $\text{C}=\text{C}$; R_1 is an unsaturated alkyl, amino-alcohol, diamino, cycloalkyl, and $\text{C}(=\text{O})(\text{CH}_2)_n\text{NR}'\text{R}''$, $(\text{CH}_2)_n\text{CHOHCH}_2\text{NR}'\text{R}''$, wherein n is an integer; R_0 , R_T , R' , and R'' are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted $(\text{CH}_2)_m$ -(hetero)aryl, and sulfonylamide; q and t are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

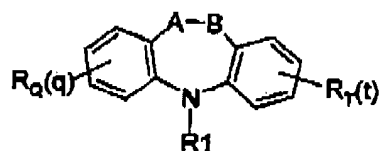
7. The composition of claim 6, wherein A and B are each a carbon, R₂, R₃, R₄ and R₅ are each a hydrogen, and R₁ is C(-O)(CH₂)_nNR'R'', n being 0-5, R' and R are each hydrogen and R'' is as defined above.

AMENDED SHEET

PCT/IL 00/00510
IPEA/US 19 NOV 2001

34

8. The composition of claim 7, wherein n is 1 or 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, and *tert*-butyl.
9. The composition of claim 7, wherein n is 1 or 2 and R'' is saturated or unsaturated $(CH_2)_m$ -cycloalkyl or $(CH_2)_m$ -(hetero)aryl, m being 0-5.
10. The composition of claim 9, wherein m is 1 and R'' is an aromatic 6-member ring.
11. The composition of claim 6, wherein A is CR_2R_3 or $C=O$ and B is CR_4R_5 ; R_2 , R_3 , R_4 , R_5 and R_6 are each a hydrogen, and R_1 is $C(=O)(CH_2)_nNR'R''$, n being 0-5, R and R' are each hydrogen and R'' is as defined above.
12. The composition of claim 11, wherein n is 2 and R'' is an alkyl selected from the group consisting of ethyl, propyl, *n*-butyl, *iso*-butyl, *tert*-butyl and *sec*-butyl.
13. The composition of claim 11, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.
14. A method for treating or preventing cardiac arrhythmia in a subject, the method comprising the step of administering a pharmaceutically effective amount of a compound, said compound being a member of a group having the formula:



AMENDED SHEET

19 NOV 2001 17:16

EHRLICH & PHILLIPS 972-3-6127575

PC/MIL 00/00510
IPEAUS 19 NOV 2001

35

wherein,

A is CH or CR₂R₃; B is CH, CR₄R₅ or NR₆, wherein R₂, R₃, R₄, R₅ and R₆ are each independently selected from the group consisting of hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_m-(hetero)aryl; or A and B together are C=C; R₁ is an unsaturated alkyl, amino-alcohol, diamino, cycloalkyl, and C(=O)(CH₂)_nNR'R'', (CH₂)_nCHOHCH₂NR'R'', wherein n is an integer; R₀, R₁, R', and R'' are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_m-(hetero)aryl, and sulfonylamide; q and r are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

15. The method of claim 14, wherein A and B are each a CH moiety, R₂, R₃, R₄ and R₅ are each a hydrogen, and R₁ is C(=O)(CH₂)_nNR'R'', n being 0-5, R and R' are each hydrogen and R'' is as defined above.

16. The method of claim 14, wherein n is 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, *iso*-butyl, *tert*-butyl and *sec*-butyl.

17. The method of claim 15, wherein n is 2 and R'' is saturated or unsaturated (CH₂)_m-(hetero)aryl, m being 0-5.

18. The method of claim 14, wherein A is CR₂R₃ or C=O and B is CR₄R₅; R₂, R₃, R₄, R₅ and R₆ are each a hydrogen, and R₁ is C(=O)(CH₂)_nNR'R'', n being 0-5, R and R' are each hydrogen and R'' is as defined above.

19. The method of claim 18, wherein n is 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, and *tert*-butyl

AMENDED SHEET

PCT/IL 00/00510

IPEA/US 19 NOV 2001

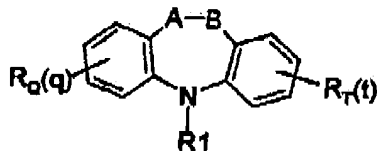
36

20. The method of claim 18, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.

21. The method of claim 15, wherein said compound is administered to the subject parenterally.

22. The method of claim 15, wherein an implanted defibrillator is implanted in the subject, such that said compound is an adjunct treatment to defibrillation by said implanted defibrillator.

23. A method for transforming sustained ventricular fibrillation to spontaneously defibrillating transient ventricular fibrillation in a subject, the method comprising the step of administering a pharmaceutically effective amount of a compound, said compound being a member of a group having the formula:



wherein,

A is CH, CR_2R_3 or $C=O$; B is CH, CR_4R_5 or NR_6 , wherein R_2 , R_3 , R_4 , R_5 and R_6 are each independently selected from the group consisting of hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted $(CH_2)_m$ -(hetero)aryl; or A and B together are $C=C$; R_1 is saturated or unsaturated alkyl, amino-alcohol, diamino, cycloalkyl, and $C(=O)(CH_2)_nNR'R''$, $(CH_2)_nCHOHCH_2NR'R''$, wherein n is an integer; R_Q , R_T , R' , and R'' are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or

AMENDED SHEET

PCT/IL 00/00510
IPEAUS 19 NOV 2001

37

branched alkyl, substituted or unsubstituted $(CH_2)_m$ -(hetero)aryl, and sulfonylamide; q and r are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

24. The method of claim 23, wherein A and B are each a CH moiety, R_2 , R_3 , R_4 and R_5 are each a hydrogen, and R_1 is $C(=O)(CH_2)_nNR'R''$, n being 0-5, R and R' are each hydrogen and R'' is as defined above.

25. The method of claim 24, wherein n is 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, and *tert*-butyl.

26. The method of claim 24, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.

27. The method of claim 23, wherein A is CR_2R_3 or $C=O$ and B is CR_4R_5 ; R_2 , R_3 , R_4 , R_5 and R_6 are each a hydrogen, and R_1 is $C(=O)(CH_2)_nNR'R''$, n being 0-5 and R' is a hydrogen and R'' is as defined above.

28. The method of claim 27, wherein n is 2 and R'' is an alkyl selected from the group consisting of ethyl, propyl, *n*-butyl, *iso*-butyl, *tert*-butyl and *sec*-butyl.

29. The method of claim 27, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.

30. The method of claim 23, wherein said compound is administered to the subject parenterally.

AMENDED SHEET

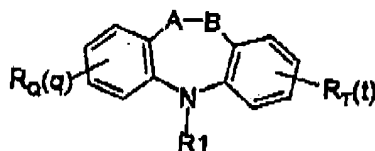
19.NOV.2001 17:17

PCT/IL 00/00510
IPEAUS 19 NOV 2001

38

31. The method of claim 23, wherein an implanted defibrillator is implanted in the subject, such that said compound is an adjunct treatment to defibrillation by said implanted defibrillator.

32. A method of locally treating or preventing cardiac ischemia in a subject comprising the step of locally applying onto a cardiac tissue a composition comprising a pharmaceutically effective amount of a compound in combination with a pharmaceutically acceptable carrier, said compound being a member of a group having the formula:



wherein A is CH, CR₂R₃ or C=O; B is CH, CR₄R₅ or NR₆, wherein R₂, R₃, R₄, R₅ and R₆ are each independently selected from the group consisting of hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_n-(hetero)aryl; or A and B together are C=C; R₁ is saturated or unsaturated alkyl, amino-alcohol, diamino, cycloalkyl, and C(=O)(CH₂)_nNR'R'', (CH₂)_nCHOHCH₂NR'R'', wherein n is an integer; R_Q, R_T, R', and R'' are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_n-(hetero)aryl, and sulfonylamide; q and t are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

33. The method of claim 32, wherein the step of locally applying the composition onto said tissue further comprises the steps of:

- (i) applying the composition to an implant; and

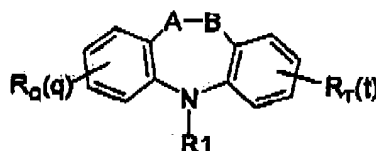
AMENDED SHEET

PCT/IL 00/00510
PEAUS 19 NOV 2001

39

- (ii) inserting said implant into said tissue.

34. A method for transforming sustained ventricular fibrillation to spontaneously defibrillating transient ventricular fibrillation in a subject, the method comprising the step of inducing cardiac sympathetic activity by administering a compound to the subject, said compound being a member of a group having the formula:



wherein,

A is CH, CR₂R₃ or C=O; B is CH, CR₄R₅ or NR₆, wherein R₂, R₃, R₄, R₅ and R₆ are each independently selected from the group consisting of hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_m-(hetero)aryl; or A and B together are C=C; R₁ is saturated or unsaturated alkyl, amino-alcohol, diamino, cycloalkyl, and C(=O)(CH₂)_nNR'R'', (CH₂)_nCHOHCH₂NR'R'', wherein n is an integer; R_Q, R_T, R', and R'' are each independently a hydrogen, halogen, hydroxyl, saturated, unsaturated, aliphatic, or branched alkyl, substituted or unsubstituted (CH₂)_m-(hetero)aryl, and sulfonylamide; q and t are each an integer independently selected from 1-4; and pharmaceutically acceptable salts thereof.

35. The method of claim 34, wherein A and B are each a CH moiety, R₂, R₃, R₄ and R₅ are each a hydrogen, and R₁ is C(=O)(CH₂)_nNR'R'', n being 0-5 and R and R' are each hydrogen and R'' is as defined above.

AMENDED SHEET

PCT/IL 00/400518
PEVUS 19 NOV 2001

40

36. The method of claim 35, wherein n is 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, *iso*-butyl, *tert*-butyl and *sec*-butyl.
37. The method of claim 35, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.
38. The method of claim 34, wherein A is CR_2R_3 or $C=O$ and B is CR_4R_5 , R_2 , R_3 , R_4 , R_5 and R_6 are each a hydrogen, and R_1 is $C(=O)(CH_2)_nNR'R''$, n being 0-5 and R' is a hydrogen and R'' is as defined above.
39. The method of claim 38, wherein n is 2 and R'' is an alkyl selected from the group consisting of methyl, ethyl, propyl, *iso*-propyl, *n*-butyl, and *tert*-butyl.
40. The method of claim 38, wherein n is 2 and R'' is saturated or unsaturated $(CH_2)_m$ -(hetero)aryl, m being 0-5.

AMENDED SHEET